

Claims

[c1]

1. A composite comprising, in sequence,

an outer layer comprising acrylic,

a second layer comprising acrylonitrile–styrene–acrylate rubber terpolymer;

a third layer comprising an ABS polymer; and

optionally a fourth layer comprising an acrylic,

wherein the layers include one or more layers having an improvement selected from among:

(a)the improvement wherein the second layer comprises an acrylate– modified

acrylonitrile–styrene–acrylate rubber terpolymer;

(b)the improvement wherein the third layer in a modified ABS that further comprises a polymer modifier that decreases the softening of the ABS on contact with styrene and an acrylonitrile–styrene–acrylate rubber terpolymer; and

(c)the improvement wherein the fourth layer is present and is a polyacrylate.

[c2]

2. The composite of claim 1, wherein the composite includes a UV stabilized acrylic outer layer.

[c3]

3. The composite of claim 2, wherein the composite includes an acrylate-modified acrylonitrile-styrene-acrylate rubber terpolymer second layer.

[c4]

4. The composite of claim 3, wherein the composite includes comprises an modified ABS third layer.

[c5]

5. The composite of claim 4, wherein the polymer modifier in the third layer is a polyacrylate.

[c6]

6. The composite of claim 5, wherein the polymer modifier is polymethylmethacrylate.

[c7]

7. The composite of claim 3, wherein the composite further includes an acrylic fourth layer.

[c8]

8. The composite of claim 7, wherein the composite further includes a polymer modified ABS third layer.

[c9]

9. The composite of claim 8, wherein the polymer modifier in the third layer is a polyacrylate.

[c10]

10. The composite of claim 9, wherein the polymer modifier is polymethylmethacrylate.

[c11]

11. The composite of claim 1, wherein the composite includes a polymer modified ABS third layer.

[c12]

12. The composite of claim 11, wherein the polymer modifier in the third layer is a polyacrylate.

[c13]

13. The composite of claim 12, wherein the polymer modifier is polymethylmethacrylate.

[c14]

14. The composite of claim 1, wherein the composite includes an acrylic fourth layer.

[c15]

15. The composite of claim 14, wherein the composite further includes a polymer modified ABS third layer.

[c16]

16. The composite of claim 15, wherein the polymer modifier in the third layer is a polyacrylate.

[c17]

17. The composite of claim 16, wherein the polymer modifier is polymethylmethacrylate.

[c18]

18. The composite according to claim 1, wherein the fourth layer is absent and the composite includes a polymer modified ABS third layer, and wherein the composite further comprises a fiber reinforced plastic substrate adhered to the third layer.

[c19]

19. The composite of claim 18, wherein the polymer modifier in the third layer is a polyacrylate.

[c20]

20. The composite of claim 18, wherein the polymer modifier is polymethylmethacrylate.

[c21]

21. The composite of claim 18, wherein the composite further includes a UV stabilized acrylic top layer.

[c22]

22. The composite of claim 21, wherein the composite further includes a rubber modified acrylonitrile–styrene–acrylate rubber terpolymer second layer.

[c23]

23. A composite according to claim 1, wherein the acrylic fourth layer is present, and wherein the composite further comprises a fiber reinforced plastic substrate adhered to the fourth layer.

[c24]

24. The composite of claim 23, wherein the composite further includes a UV stabilized acrylic top layer.

[c25]

25. The composite of claim 24, wherein the composite further includes a rubber modified acrylonitrile–styrene–acrylate rubber terpolymer second layer.

[c26]

26. The composite of claim 25, wherein the composite further includes comprises a modified ABS third layer.

[c27]

27. The composite of claim 26, wherein the polymer modifier in the third layer is a polyacrylate.

[c28]

28. The composite of claim 27, wherein the polymer modifier is polymethylmethacrylate.

[c29]

29. The composite of claim 23, wherein the composite further includes a polymer modified ABS third layer.

[c30]

30. The composite of claim 29, wherein the polymer modifier in the third layer is a polyacrylate.

[c31]

31. The composite of claim 30, wherein the polymer modifier is polymethylmethacrylate.